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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,597	10/26/2001	Curtis W. Heisey	SYNER-177XX	6523

207	7590	08/05/2005

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EXAMINER
KISS, ERIC B

ART UNIT	PAPER NUMBER
2192	

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _17 May 2005_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-37_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-37_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   The reply filed 17 May 2005 has been received and entered. Claims 1-37 are pending.

Oath/Declaration

2.   The objection to the declaration is withdrawn.

Response to Amendment

3.   Applicant's amendments to the Abstract appropriately address the objection to the

specification as detailed in the previous Office action. Accordingly, this objection is withdrawn

in view of Applicant's amendments.

4.   Applicant's amendments to the claims appropriately address the rejection of claims 3-8

and 11-16 under 35 U.S.C. §112, second paragraph, based on indefiniteness. Accordingly, this

rejection is withdrawn in view of Applicant's amendments.

Response to Arguments

5.   Applicant's arguments filed 17 May 2005 have been fully considered but they are not

persuasive.

a.   In response to Applicant's arguments in the last paragraph on p. 10, continuing onto p.

11, the Examiner maintains that *Reynolds et al.* discloses the NMS issuing a plurality of device

commands, at least one to replace the code image. The NMS adds a new record 1251 in an

Upgrade Control table 1248 and generates a code in Command field 1252 corresponding to the

action requested by the administrator (paragraph [0511]). When the NMS adds new record 1251,

an active query is sent to the master SMS, and if an upgrade command is detected, the master

SMS sends notices to all SMS clients that access software components from the current release

subdirectory indicating that software components should now be accessed from the new release

sub-directory (paragraph [0512]). After determining where software components that need to be

upgraded are currently being executed, master SMS 184 tells the appropriate slave SMSs, which

tell their local slave SRMs... to load the changed software and the control shims for each of the

changed software components from new release sub-directory 1220 onto the appropriate boards

(paragraph [0522]).

b.   In response to Applicant's arguments in the second paragraph of p. 11, *Reynolds et al.*

discloses that, *a board-by-board upgrade may allow a network device administrator to [choose]*

certain boards on which to upgrade applications and allow older versions of the same

applications to continue running on other boards (paragraph [0505]).

c.   In response to Applicant's arguments in the second paragraph of p. 12, these arguments

are related to newly recited limitations and are addressed as set forth in the rejections below.

However, the Examiner submits that the system of *Reynolds et al.* includes standard SNMP traps

enabling asynchronous notification of problems to both client and server. See paragraphs [0119]

and [0127].

Claim Objections

6.   Claims 20 and 33 are objected to because of the following informalities: "in responsive

to" in line 2 of each claim should be replaced with either --in response to-- OR --responsive to--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7.   The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

8.   Claims 34, 36, and 37 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Claim 34 recites the limitation "The method of claim 32" in line 1. There is insufficient

antecedent basis for this limitation in the claim. In the interest of compact prosecution, the

Examiner subsequently interprets claim 34 as being dependent from claim 33 instead of from

claim 32 for the purpose of further examination.

Claim 36 is dependent from claim 34, and is rejected for the reasons set forth above.

Claim 37 contains an unclear fragmented limitation in line 2. In the interest of compact

prosecution, and based on similarly worded claim 24, the affected line is subsequently

interpreted as --**monitoring** said embedded device...-- for the purpose of further examination.

Claim Rejections - 35 USC § 102

9.   The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

10.   Claims 1-17, 19-21, 24-34, and 37 are rejected under 35 U.S.C. 102(e) as being

anticipated by U.S. Patent Application Publication No. 2003/0126195 (Reynolds et al.).

As per claim 1, *Reynolds et al.* discloses:

control program code responsive to at least one user command for issuing a plurality of

device commands including at least one device command to replace a code image in an

embedded device (see, for example, paragraph [0508]);

monitoring program code, asynchronous with respect to said control program code, for

generating at least one event indication in response to a change of at least one predetermined

attribute associated with said embedded device and forwarding said at least one event indication

to said control program code (see, for example, paragraph [0504]); and

said at least one device command replacing said code image in response to said at least

one event indication (see, for example, paragraph [0505]).

As per claim 2, *Reynolds et al.* further discloses the control program code and the

monitoring program code being independent threads of execution (see, for example, paragraph

[0503]).

As per claim 3, *Reynolds et al.* further discloses an embedded device abstraction software object that generates at least one event to said monitoring program code in response to information obtained from said embedded device (see, for example, paragraph [0508]).

As per claim 4, *Reynolds et al.* further discloses the embedded device abstraction software object generating at least one event to said control program code in response to information obtained from said embedded device (see, for example, paragraph [0508]).

As per claim 5, *Reynolds et al.* further discloses said information obtained from said embedded device including at least one value from a Management Information Base (MIB) stored on said embedded device (see, for example, paragraph [0119]).

As per claim 6, *Reynolds et al.* further discloses said embedded device abstraction software object further operating to receive said at least one command from said control program code, and, in response, send at least one corresponding query to said embedded device (see, for example, paragraph [0512]).

As per claim 7, *Reynolds et al.* further discloses said monitoring program code operating to periodically check the state of at least one attribute of said embedded device (see, for example, paragraph [0521]).

As per claim 8, *Reynolds et al.* further discloses said monitoring program code operating to periodically check the state of at least one attribute of said embedded device by sending at least one command to said embedded device abstraction software object (see, for example, paragraph [0521]).

As per claim 9, *Reynolds et al.* further discloses a state machine represented in program code accessible to said control program code (see, for example, paragraphs [0734] through [0737]).

As per claims 10-17, these are method versions of the claimed system discussed above (claims 1 and 3-9), wherein all limitations have been addressed as set forth above.

As per claim 19, this is a means-plus-function version of the claimed system discussed above (claim 1). Further, *Reynolds et al.* discloses equivalent structure to that which is specified in Applicant's disclosure (see, for example, Figs. 1 and 2a-2j).

As per claim 20, *Reynolds et al.* discloses a control program operative, in response to a user command, to replace a code image in an embedded device (see, for example, paragraphs [0504] through [0508]); and a monitor program operative, asynchronously with respect to said control program, to: monitor progress of replacing said code image in said embedded device (see, for example, paragraph [0504]; Further, *Reynolds et al.* includes standard SNMP traps enabling asynchronous notification of problems to both client and server. See paragraphs [0119] and [0127].); and generate an event indication to said control program to indicate a status of replacing said code image before replacement of said code image is completed (see, for example, paragraph [0504]; Further, *Reynolds et al.* includes standard SNMP traps enabling asynchronous notification of problems to both client and server. See paragraphs [0119] and [0127].).

As per claim 21, *Reynolds et al.* further discloses detecting a failure during said replacement of said code image and generating the event indication to the control program in response to detecting said failure (see, for example, paragraph [0504]; Further, *Reynolds et al.*

includes standard SNMP traps enabling asynchronous notification of problems to both client and server. See paragraphs [0119] and [0127].).

As per claim 24, *Reynolds et al.* further discloses monitoring the embedded device for a reset operation performed by said embedded device and generating an event indication to said control program in response to said reset operation performed by said embedded device (see, for example, paragraph [0106]).

As per claim 25, *Reynolds et al.* further discloses the control program code and the monitoring program code being independent threads of execution (see, for example, paragraph [0503]).

As per claim 26, *Reynolds et al.* further discloses an embedded device abstraction software object that generates at least one event to said monitoring program code in response to information obtained from said embedded device (see, for example, paragraph [0508]).

As per claim 27, *Reynolds et al.* further discloses the embedded device abstraction software object generating at least one event to said control program code in response to information obtained from said embedded device (see, for example, paragraph [0508]).

As per claim 28, *Reynolds et al.* further discloses said information obtained from said embedded device including at least one value from a Management Information Base (MIB) stored on said embedded device (see, for example, paragraph [0119]).

As per claim 29, *Reynolds et al.* further discloses said embedded device abstraction software object further operating to receive said at least one command from said control program code, and, in response, send at least one corresponding query to said embedded device (see, for example, paragraph [0512]).

As per claim 30, *Reynolds et al.* further discloses said monitoring program code operating to periodically check the state of at least one attribute of said embedded device (see, for example, paragraph [0521]).

As per claim 31, *Reynolds et al.* further discloses said monitoring program code operating to periodically check the state of at least one attribute of said embedded device by sending at least one command to said embedded device abstraction software object (see, for example, paragraph [0521]).

As per claim 32, *Reynolds et al.* further discloses a state machine represented in program code accessible to said control program code (see, for example, paragraphs [0734] through [0737]).

As per claims 33, 34, and 37, these are method versions of the claimed system discussed above (claims 20, 21, and 24), wherein all limitations have been addressed as set forth above.

Claim Rejections - 35 USC § 103

11.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12.   Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0126195 (Reynolds et al.) in view of U.S. Patent No. 6,549,943 to Spring.

As per claim 18, this is a computer program product version of the claimed system discussed above (claim 1). Although *Reynolds et al.* discloses such functionality (see the disclosure applied above to claim 1) but fails to expressly disclose the use of such a computer program product for implemented the prescribed system functionality, the use of such products is well known. For example, *Spring* teaches the use of such a product in a system for network management using abstract device descriptions (see, for example, col. 64, line 52, through col. 66, line 27). Therefore, it would have been obvious to one of ordinary skill in the computer art at the time the invention was made to include such a computer program product as a well known and established means of storing and transporting computer program data for a computer-implemented method.

13.   Claims 22, 23, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0126195 (Reynolds et al.) in view of U.S. Patent Application Publication No. 2001/0055017 (Ording).

As per claims 22 and 23, in addition to the disclosure applied to claim 20, *Reynolds et al.* fails to expressly disclose monitoring a number of bytes and files received by said embedded device and generating the event indication in response to such byte/file monitoring. However, *Ording* teaches that it is known, in the context of performing a remote installation, to perform such byte/file monitoring in a multi-threaded asynchronous manner (see, for example, paragraphs [0017] through [0022]). Therefore, it would have been obvious to one of ordinary skill in the computer art at the time the invention was made to modify the method of *Reynolds et*

al. to include such byte/file monitoring. One would be motivated to do so to provide continuous feedback of an ongoing installation activity.

As per claims 35 and 36, these are method versions of the claimed system discussed above (claims 20, 21, and 24), wherein all limitations have been addressed as set forth above. For reasons stated above, such claims also would have been obvious.

Conclusion

14.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15.   Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric B. Kiss whose telephone number is (571) 272-3699. The

Examiner can normally be reached on Tue. - Fri., 7:00 am - 4:30 pm. The Examiner can also be reached on alternate Mondays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tuan Dam, can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature should be directed to the TC 2100 Group receptionist: 571-272-2100.

EBK/EBK
August 2, 2005

TUAN DAM
SUPERVISORY PATENT EXAMINER